



Revised sequence listing.txt
SEQUENCE LISTING

<110> Stratagene
<120> HIGH FIDELITY DNA POLYMERASE COMPOSITIONS AND USES THEREFOR
<130> 25436/2155
<140> 10/079,241
<141> 2002-02-20
<160> 11
<170> PatentIn version 3.1
<210> 1
<211> 7
<212> PRT
<213> Artificial Sequence
<220>
<223> Conserved domain
<220>
<221> MISC_FEATURE
<222> (2)..(3)
<223> Conserved domain, X at position 2 or 3 is any amino acid.

<400> 1
Asp Xaa Xaa Ser Leu Tyr Pro
1 5

<210> 2
<211> 9
<212> PRT
<213> Artificial Sequence
<220>
<223> Conserved domain
<220>
<221> MISC_FEATURE
<222> (2)..(7)
<223> Conserved domain, X at position 2, 3, 4, or 7 is any amino acid.

<400> 2
Lys Xaa Xaa Xaa Asn Ser Xaa Tyr Gly
1 5

<210> 3
<211> 5
<212> PRT
<213> Artificial Sequence
<220>
<223> Conserved domain

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<220>
<221> misc_feature
<222> (2)..(3)
<223> Conserved domain, X at position 2 or 3 is any amino acid.

<400> 3

Thr Xaa Xaa Gly Arg
1 5

<210> 4
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Conserved domain

<220>
<221> MISC_FEATURE
<222> (2)..(2)
<223> Conserved domain, X at position 2 is any amino acid.

<400> 4

Tyr Xaa Asp Thr Asp Ser
1 5

<210> 5
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Conserved domain

<220>
<221> misc_feature
<222> (2)..(2)
<223> Conserved domain, X at position 2 is any amino acid.

<400> 5

Lys Xaa Tyr
1

<210> 6
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Conserved domain

<220>
<221> MISC_FEATURE
<222> (2)..(2)

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<223> Conserved domain, X at position 2 is any amino acid.

<400> 6

Tyr Xaa Gly Gly
1

<210> 7
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Conserved domain

<220>
<221> MISC_FEATURE
<222> (1)..(6)
<223> Conserved domain

<400> 7

Ser Tyr Thr Gly Gly Phe
1 5

<210> 8
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic primer

<220>
<221> misc_feature
<222> (1)..(23)
<223> Synthetic primer

<400> 8
gaggagagca ggaaagggtgg aag

23

<210> 9
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic primer

<220>
<221> misc_feature
<222> (1)..(23)
<223> Synthetic primer

<400> 9
gaggtacagg gttgaggctt ctg

23

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<210> 10

<211> 776

<212> PRT

<213> Thermococcus sp. JDF-3

<400> 10

Met Ile Leu Asp Val Asp Tyr Ile Thr Glu Asn Gly Lys Pro Val Ile
1 5 10 15

Arg Val Phe Lys Lys Glu Asn Gly Glu Phe Arg Ile Glu Tyr Asp Arg
20 25 30

Glu Phe Glu Pro Tyr Phe Tyr Ala Leu Leu Arg Asp Asp Ser Ala Ile
35 40 45

Glu Glu Ile Lys Lys Ile Thr Ala Glu Arg His Gly Arg Val Val Lys
50 55 60

Val Lys Arg Ala Glu Lys Val Lys Lys Phe Leu Gly Arg Ser Val
65 70 75 80

Glu Val Trp Val Leu Tyr Phe Thr His Pro Gln Asp Val Pro Ala Ile
85 90 95

Arg Asp Lys Ile Arg Lys His Pro Ala Val Ile Asp Ile Tyr Glu Tyr
100 105 110

Asp Ile Pro Phe Ala Lys Arg Tyr Leu Ile Asp Lys Gly Leu Ile Pro
115 120 125

Met Glu Gly Glu Glu Glu Leu Lys Leu Met Ser Phe Asp Ile Glu Thr
130 135 140

Leu Tyr His Glu Gly Glu Glu Phe Gly Thr Gly Pro Ile Leu Met Ile
145 150 155 160

Ser Tyr Ala Asp Glu Ser Glu Ala Arg Val Ile Thr Trp Lys Lys Ile
165 170 175

Asp Leu Pro Tyr Val Glu Val Val Ser Thr Glu Lys Glu Met Ile Lys
180 185 190

Arg Phe Leu Arg Val Val Lys Glu Lys Asp Pro Asp Val Leu Ile Thr
195 200 205

Tyr Asn Gly Asp Asn Phe Asp Phe Ala Tyr Leu Lys Lys Arg Cys Glu
210 215 220

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Lys Leu Gly Val Ser Phe Thr Leu Gly Arg Asp Gly Ser Glu Pro Lys
225 230 235 240

Ile Gln Arg Met Gly Asp Arg Phe Ala Val Glu Val Lys Gly Arg Val
245 250 255

His Phe Asp Leu Tyr Pro Val Ile Arg Arg Thr Ile Asn Leu Pro Thr
260 265 270

Tyr Thr Leu Glu Ala Val Tyr Glu Ala Val Phe Gly Lys Pro Lys Glu
275 280 285

Lys Val Tyr Ala Glu Glu Ile Ala Thr Ala Trp Glu Thr Gly Glu Gly
290 295 300

Leu Glu Arg Val Ala Arg Tyr Ser Met Glu Asp Ala Arg Val Thr Tyr
305 310 315 320

Glu Leu Gly Arg Glu Phe Phe Pro Met Glu Ala Gln Leu Ser Arg Leu
325 330 335

Ile Gly Gln Gly Leu Trp Asp Val Ser Arg Ser Ser Thr Gly Asn Leu
340 345 350

Val Glu Trp Phe Leu Leu Arg Lys Ala Tyr Glu Arg Asn Glu Leu Ala
355 360 365

Pro Asn Lys Pro Asp Glu Arg Glu Leu Ala Arg Arg Arg Gly Gly Tyr
370 375 380

Ala Gly Gly Tyr Val Lys Glu Pro Glu Arg Gly Leu Trp Asp Asn Ile
385 390 395 400

Val Tyr Leu Asp Phe Arg Ser Leu Tyr Pro Ser Ile Ile Ile Thr His
405 410 415

Asn Val Ser Pro Asp Thr Leu Asn Arg Glu Gly Cys Arg Ser Tyr Asp
420 425 430

Val Ala Pro Glu Val Gly His Lys Phe Cys Lys Asp Phe Pro Gly Phe
435 440 445

Ile Pro Ser Leu Leu Gly Asn Leu Leu Glu Glu Arg Gln Lys Ile Lys
450 455 460

Arg Lys Met Lys Ala Thr Leu Asp Pro Leu Glu Lys Asn Leu Leu Asp
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465

470

475

480

Tyr Arg Gln Arg Ala Ile Lys Ile Leu Ala Asn Ser Tyr Tyr Gly Tyr
485 490 495

Tyr Gly Tyr Ala Arg Ala Arg Trp Tyr Cys Arg Glu Cys Ala Glu Ser
500 505 510

Val Thr Ala Trp Gly Arg Glu Tyr Ile Glu Met Val Ile Arg Glu Leu
515 520 525

Glu Glu Lys Phe Gly Phe Lys Val Leu Tyr Ala Asp Thr Asp Gly Leu
530 535 540

His Ala Thr Ile Pro Gly Ala Asp Ala Glu Thr Val Lys Lys Lys Ala
545 550 555 560

Met Glu Phe Leu Asn Tyr Ile Asn Pro Lys Leu Pro Gly Leu Leu Glu
565 570 575

Leu Glu Tyr Glu Gly Phe Tyr Val Arg Gly Phe Phe Val Thr Lys Lys
580 585 590

Lys Tyr Ala Val Ile Asp Glu Glu Gly Lys Ile Thr Thr Arg Gly Leu
595 600 605

Glu Ile Val Arg Arg Asp Trp Ser Glu Ile Ala Lys Glu Thr Gln Ala
610 615 620

Arg Val Leu Glu Ala Ile Leu Arg His Gly Asp Val Glu Glu Ala Val
625 630 635 640

Arg Ile Val Arg Glu Val Thr Glu Lys Leu Ser Lys Tyr Glu Val Pro
645 650 655

Pro Glu Lys Leu Val Ile His Glu Gln Ile Thr Arg Glu Leu Lys Asp
660 665 670

Tyr Lys Ala Thr Gly Pro His Val Ala Ile Ala Lys Arg Leu Ala Ala
675 680 685

Arg Gly Val Lys Ile Arg Pro Gly Thr Val Ile Ser Tyr Ile Val Leu
690 695 700

Lys Gly Ser Gly Arg Ile Gly Asp Arg Ala Ile Pro Phe Asp Glu Phe
705 710 715 720

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Asp Pro Thr Lys His Lys Tyr Asp Ala Asp Tyr Tyr Ile Glu Asn Gln
 725 730 735

Val Leu Pro Ala Val Glu Arg Ile Leu Arg Ala Phe Gly Tyr Arg Lys
 740 745 750

Glu Asp Leu Arg Tyr Gln Lys Thr Arg Gln Val Gly Leu Gly Ala Trp
 755 760 765

Leu Lys Pro Lys Gly Lys Lys Lys
 770 775

<210> 11
 <211> 2331
 <212> DNA
 <213> Thermococcus sp. JDF-3

| | |
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| aaggagaacg gcgagttcag gattgaatac gaccgcgagt tcgagcccta cttctacgcg | 180 |
| ctccctcaggg acgactctgc catcgaagaa atcaaaaaga taaccgcgga gaggcacggc | 240 |
| agggtcgtta aggttaagcg cgccgagaag gtgaagaaaa agttcctcgg caggtctgtg | 300 |
| gaggtctggg tcctctactt cacgcacccg caggacgttc cggcaatccg cgacaaaata | 360 |
| aggaagcacc cgcgcgtcat cgacatctac gagtacgaca tacccttcgc caagcgctac | 420 |
| ctcatagaca agggcctaatt cccgatggaa ggtgaggaag agcttaaact catgtccccc | 480 |
| gacatcgaga cgctctacca cgagggagaa gagtttgaa ccgggcccgt tctgtatgata | 540 |
| agctacgccc atgaaagcga ggcgcgcgtg ataacctgga agaagatcga cttcccttac | 600 |
| gtttaggttg tctccaccga gaaggagatg attaagcgct tcttgagggt cgttaaggag | 660 |
| aaggacccgg acgtgctgat aacatacaac ggcgacaact tcgacttcgc ctacctgaaa | 720 |
| aagcgctgtg agaagcttgg cgtgagctt accctcgaaa gggacgggag cgagccgaag | 780 |
| atacagcgca tgggggacag gtttgcggtc gaggtgaagg gcagggtaca cttcgacctt | 840 |
| tatccagtca taaggcgcac cataaacctc ccgacctaca cccttgaggc tgtatacgag | 900 |
| gcggttttcg gcaagccaa ggagaaggtc tacgcccagg agatagccac cgcctgggag | 960 |
| accggcgagg ggcttgagag ggtcgccgc tactcgatgg aggacgcgag gtttacctac | 1020 |
| gagcttggca gggagttctt cccgatggag gcccagctt ccaggctcat cggccaaggc | 1080 |
| ctctgggacg tttcccgctc cagcaccggc aacctcgatgg agtgggtcct cctaaggaag | 1140 |
| gcctacgaga ggaacgaact cgctcccaac aagccccacg agagggagct ggcgaggaga | 1200 |
| agggggggct acgcccgtgg ctacgtcaag gagccggagc gggactgtg ggacaatatc | 1260 |
| gtgtatctag actttcgtag tctctaccct tcaatcataa tcacccacaa cgtctcgcca | |

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| | |
|--|------|
| gatacgctca accgcgaggg gtgttaggac tacgacgtt ccccgaggt cggtcacaag | 1320 |
| ttctgcaagg acttccccgg cttcattccg agcctgctcg gaaacctgct ggaggaaagg | 1380 |
| cagaagataa agaggaagat gaaggcaact ctcgaccgc tggagaagaa tctcctcgat | 1440 |
| tacaggcaac ggcgcattcaa gattctgcc aacagctact acggctacta cggttatgcc | 1500 |
| aggcaagat ggtactgcag ggagtgcgc gagagcgta cggtatggg aaggaggtac | 1560 |
| atcgaaatgg tcatcagaga gctttaggaa aagttcggtt ttaaagtccct ctatgcagac | 1620 |
| acagacggtc tccatgccac cattcctgga gcggacgctg aaacagtcaa gaaaaaggca | 1680 |
| atggagttct taaactataa caatccaaa ctgcccggcc ttctcgaact cgaatacgg | 1740 |
| ggcttctacg tcaggggctt cttcgacg aagaaaaagt acgcggcat cgacgaggag | 1800 |
| ggcaagataa ccacgcgcgg gctttagata gtcaggcgcg actggagcga gatagcgaag | 1860 |
| gagacgcagg cgagggtttt ggaggcata ctcaggcacg gtgacggttga agaggccgtc | 1920 |
| agaattgtca gggaaagtac cgaaaagctg agcaagtacg aggttccgcg ggagaagctg | 1980 |
| gttatccacg agcagataac gcgcgagctc aaggactaca aggccaccgg cccgcacgt | 2040 |
| gccatagcga agcgtttggc cgccagaggt gttaaaatcc ggcccggAAC tgtgataagc | 2100 |
| tacatcggtt tgaagggctc cggaaggata ggcgacaggcg cgattccctt cgacgagttc | 2160 |
| gacccgacga agcacaagta cgatgcggac tactacatcg agaaccaggt tctgccggca | 2220 |
| gttgagagaa tcctcaggc cttcggtac cgcaaggaag acctgcgtta ccagaagacg | 2280 |
| aggcaggctcg ggcttggcgc gtggctgaag ccgaaggggaa agaagaagtg a | 2331 |